

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY


(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference 209059/EP/pr	FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/EP2004/002985	International filing date (day/month/year) 19.03.2004	Priority date (day/month/year) 19.03.2003	
International Patent Classification (IPC) or national classification and IPC H04M3/53, H04M3/533, H04M3/537			
Applicant TELEFONAKTIEBOLAGET L M ERICSSON (PUBL) et al			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau) a total of 10 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand 19.01.2005		Date of completion of this report 03.05.2005	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer Schorgg, A Telephone No. +49 89 2399-6958	



**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2004/002985

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:

- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-4, 8-10, 13-20	as originally filed
5, 6	received on 21.01.2005 with letter of 19.01.2005
7, 11, 12	received on 15.03.2005 with letter of 11.03.2005

Claims, Numbers

5 (part), 6-28, 29 (part), 35-50	received on 21.01.2005 with letter of 19.01.2005
1-4, 5 (part), 29 (part), 30-34	received on 15.03.2005 with letter of 11.03.2005

Drawings, Sheets

1/8-8/8	as originally filed
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☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2004/002985

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-50
	No: Claims	
Inventive step (IS)	Yes: Claims	1-50
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-50
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Concerning section V (reasoned statement under Article 35(2) PCT)

1. The application concerns a system and a method for storing and accessing multimedia messages by users of a communication network. In particular the application deals with the aspect on how the originator of a message can have access to a stored message.
2. Messaging systems in general are well known in the relevant state of the art. These systems allow e.g. a calling party to leave a voice message for later retrieval by the called party, in situations where the called party can not answer the incoming call directly. Usually, these messaging systems follow the so-called inbox concept, whereby the messaging system is under control of the intended message recipient. However, these systems have the drawback that messages can not be accessed by the originator of a message. This state of the art is e.g. disclosed by document D1, which is considered to represent the closest state of art concerning the present application. The system and method disclosed by Document D1, which is restricted to voice messaging systems only, provides a calling party with message options such as reviewing, deleting or re-recording, however, only at the end of storing the message.

This system has the drawback, that once the call is terminated, the calling party no longer has access to a stored message in order to process that message. Such an access possibility may be desirable in many occasions, e.g. when the reason for leaving a message has become obsolete.

3. In the present application, the sender of a message has access to a message even after final storage thereof or after completion of a call. To achieve that goal, the present multi media messaging system has at least one storage facility for storing messages, whereby the storage facility is assigned to the sender of a message. The intended recipient of a message receives a notification about stored messages including information about the location of the storage facility. Following this so-called outbox concept the sender of a message can access and process a stored message even after final storage thereof or after completion of a call.

4. None of the available prior art documents discloses neither suggests a solution such as that proposed in the present application.
5. It is therefore considered that independent claims 1 and 30 meet the requirements of Articles 33(2), (3) and (4) PCT regarding novelty, inventive step and industrial applicability.

Claims 2 to 29 and 31 to 50 contain further details of the multimedia messaging system and the method of sending and receiving multi media messages, respectively. As they are dependent on these claims, they also meet the requirements of Articles 33(2), (3) and (4) PCT regarding novelty, inventive step and industrial applicability.

Concerning section VIII (Clarity)

On page 1 of the present description, the reference to the unpublished document should have been replaced by its issued patent or application numbers (or deleted)

The general "spirit" statement in the description on page 20, line 24 is unclear, and when used to interpret the claims renders them also unclear, contrary to Article 6 PCT. Therefore, the statement should have been deleted.

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the aspect of high costs from a Network and the intended receiver point of view. This disadvantage especially emerges when the intended receiver makes a (possible long distance) call from one telephony network to another telephony network to find out if there are messages in his or her inbox. In this case a real-time connection (sometimes international) has to be set up, which requires the use of various resources to be reserved along the path, resulting into an expensive call. Even in the case that messages are sent, or calls are set up by the Network to notify the intended receiver of the presence of messages (hereinafter both methods of notifying the intended receiver are called alert), the intended receiver may well be out of the country, which also requires the use of resources to be used along the path, resulting in an expensive alert.

Storage space for these messages is possibly on the account of the intended receiver. As messages and especially multimedia messages are growing in size, available storage space may at some point in time become too small to receive additional incoming messages, which leads to denial of access. The intended receiver may solve this problem by acquiring additional storage space, but this may in turn lead to extra costs for the intended receiver. This may be regarded as unfair, because the sender, who is responsible for the size of the messages, bears no costs for the storage facilities of the intended receiver.

US 2002/0101964 A1 discloses a voice message system in a communications network, wherein a sender can store a message for an intended receiver in a data storage device. At the end of the message the sender has message options like reviewing, deleting, re-recording, and/or sending the message. After termination of the call the message is no longer accessible to the sender.

It may be advantageous to set forth definitions of certain words and phrases used throughout this patent document: the terms "include" and "comprise," as well as derivatives thereof, mean inclusion without limitation; the term "or," is inclusive, meaning and/or; the phrases "associated with" and "associated therewith," as well as derivatives thereof, may mean to include, be included within,

interconnect with, contain, be contained within, connect to or with, couple to or with, be communicable with, cooperate with, interleave, juxtapose, be proximate to, be bound to or with, have, have a property of, or the like; and the term arrangement means any device, system or part thereof that controls at least one operation, such a device may be implemented in hardware, firmware or software, or some combination of at least two of the same. It should be noted that the functionality associated with any particular arrangement may be centralized or distributed, whether locally or remotely. In particular, an arrangement may comprise one or more data processors, and associated input/output devices and memory that execute one or more application programs and/or an operating system program. Definitions for certain words and phrases are provided throughout this patent document, those of ordinary skill in the art should understand that in many, if not most instances, such definitions apply to prior, as well as future uses of such defined words and phrases.

Disclosure of the Invention

It is an object of the present invention to provide a system and method that enables a sender, for example in the course of a telephone call, to store messages that are addressed to an intended receiver and to provide access to these messages without the sender being obstructed by the limitations of an inbox of the intended receiver.

It is a further object of the present invention to provide a terminal and a network node arrangement for use in such a system and for performing such a method.

Further features and advantages are disclosed by embodiments of the system and the method according to the invention.

In a first aspect of the invention there is provided a multi media messaging system in a communications network, arranged for sending and receiving messages between at least one sender and at least one intended receiver, the system comprising:

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- at least one storage facility, arranged for storing at least one message, wherein the or each storage facility is assigned to the sender of a message,

- a controlling arrangement, adapted for controlling storage of a message and for controlling access to a stored message;

- an accessing arrangement, arranged for providing access to a stored message, and

- an alerting arrangement, arranged for providing an intended receiver with an alert relating to the storage of a message,

characterized in that, the controlling arrangement is arranged for processing a stored message under control of the sender of the message after final storage thereof or completion of a call.

The invention is based on the novel and inventive insight that by providing to the sender of a message, control over the storage and access of a message for an intended receiver, the above mentioned drawbacks of prior art systems will be completely or at least partially alleviated. Because the sender keeps control over the storage of and access to a stored message, the sender may at all times process a stored message, for example by amending, enhancing, deleting, prioritizing etc. of the message. This contrary to the prior art of record disclosed above, which reveals no disclosure nor provides any suggestion of a system in accordance with the present invention.

The or each storage facility is assigned to the sender of a message. That is, the sender may be the owner or virtual owner or may rent the storage facility. That is, the use of the storage facility will, for example, be at the expense of the sender. Such that the sender can decide whether or not to leave long messages or messages having a large data content, for example.

In an embodiment of the invention, the controlling arrangement comprises means for processing a stored message by a sender, this processing includes at least one of storing, accessing, reading, editing and removing a message stored under the control of the sender.

In a further preferred embodiment of the invention, the

a controlling arrangement, arranged for controlling storage of a message and for controlling access to a stored message; an accessing arrangement, arranged for providing access to a stored message, and an alerting arrangement, arranged for providing an intended receiver with an alert relating to the storage of a message for use in the system of the invention disclosed above.

In a further embodiment of the invention, the network node arrangement may comprise at least one storage facility, arranged for storing at least one message.

The inventions provides also a method of sending and receiving multi media messages in a communications network, between at least one sender and at least one intended receiver of a message, the method comprising the steps of:

- assigning, to the sender of a message, of at least one storage facility arranged for storing at least one message,

- storing, by the sender, of at least one message in the or each storage facility,

- alerting at least one intended receiver by an alert relating to the storage of a message, and

- providing access to a stored message,

characterized in that a stored message is processable under control of the sender of the message after final storage thereof or completion of a call.

In a further embodiment of the method according to the invention, the sender of a message may select a storage facility for storing a message which suits best the objectives and purposes of the sender.

Further embodiments of the method according to the invention are presented in the attached claims, and the advantages and particularities of these embodiments are illustrated above with reference to their system counterparts.

Brief Description of the Drawings

In the following section, the invention will be described by way of examples of its embodiments with reference to the attached drawings, in which:

fig. 1 shows a prior art message retrieval system as presently used, based on a Voicemail Inbox of the intended receiver;

fig. 2 is a schematic representation of one embodiment of the present invention using the Internet, the Public Switched Telephone Network (PSTN) or Public Land Mobile Network (PLMN);

figs. 3a, 3b and 3c are flowcharts illustrating in detail an embodiment of the method of the invention;

figs. 4a, 4b and 4c show an example of Graphical User Interfaces (GUI) for use with the invention; and

fig. 5 shows a schematic overview of a multimedia messaging system according to the invention.

Detailed Description of Illustrative Embodiments

The numerous innovative teachings of the present invention will be described in detail with particular reference to the presently preferred exemplary embodiments. However, it should be understood that this class of embodiments provides only a few examples of the many advantageous uses of the innovative teachings herein. In general, statements made in the specification of the present invention do not necessarily delimit any of the claimed invention. Moreover, some statements may apply to some inventive features, but not to others.

With reference to fig. 1, a prior art message retrieval system is shown, which is based on a Voice mail Inbox of the intended receiver. The system comprises the following elements:

- a voice mail inbox 101 assigned to a subscriber A 105

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Claims

(42)

1. A multi media messaging system (201) in a communications network (202, 206, 207), arranged for sending and receiving messages between at least one sender (208) and at least one intended receiver (209), said system comprising:

- at least one storage facility (201a, 201b, 201c), arranged for storing at least one message, wherein the or each storage facility (201, 201b, 201c) is assigned to the sender (208) of a message,

- a controlling arrangement (501), adapted for controlling storage of a message and for controlling access to a stored message,

- an accessing arrangement (508), arranged for providing access to a stored message, and

- an alerting arrangement (504), arranged for providing an intended receiver (209) with an alert relating to the storage of a message,

characterized in that said controlling arrangement (501) is arranged for processing a stored message under control of said sender (208) of said message after final storage thereof or completion of a call.

2. A system according to claim 1, wherein said processing includes at least one of storing, accessing, reading, editing and removing a message stored under the control of said sender (208).

3. A system according to claim 1 or 2, wherein said controlling arrangement (501) is arranged for selecting a storage facility (201, 201b, 201c) by said sender (208) for storing a message.

4. A system according to any of the previous claims, wherein said alerting arrangement (504) is arranged for controlling said alert by said sender (208) of a message.

5. A system according to claim 4, wherein said alerting arrangement (504) comprises means arranged for manipulating an alert, said manipulation including at least one of reading, editing and removing

an alert under the control of said sender (208).

6. A system according to any of the previous claims, wherein said controlling arrangement (501) is arranged for including additional information with a stored message.

5 7. A system according to any of the previous claims, wherein said alerting arrangement (504) is arranged for including additional information with an alert.

8. A system according to claim 6 or 7, wherein said additional information comprises one of the group including: a message
10 identifier, at least one identification key for identifying at least one intended receiver, a telephone number, a URL, a message identifier, a subject, a personal identification number for access authorization and verification purposes, urgency of the message, validity or expiration
15 time of the message, type of alert including a call attempt and a multimedia message, number of alerts, location of the storage facility of the message, key dates, message status and flags that will trigger transfer of notifiers of status changes to the sender.

9. A system according to any of the previous claims, wherein said controlling arrangement (501) comprises means arranged for notifying
20 a sender (208) of a stored message of changes in a status of said message.

10. A system according to any of the previous claims, wherein said alerting arrangement (504) comprises means arranged for notifying a sender (208) of an alert of changes in a status of said alert.

25 11. A system according to claim 9 or 10, wherein said status comprises one of the group including "sent", "not read", "read", "expired", "reminded" and "settled".

12. A system according to any of the preceding claims wherein said controlling arrangement (501) is accessible by means of an
30 interface, including a graphical user interface, a voice control interface, an interactive voice response interface and a Dual-Tone

Multi-Frequency interface.

13. A system according to any of the preceding claims wherein said alerting arrangement (504) is accessible by means of an interface, including a graphical user interface, a voice control interface, an interactive voice response interface and a Dual-Tone Multi-Frequency interface.

14. A system according to any of the previous claims, wherein said controlling arrangement (501) comprises validating means, arranged for verification and authorization of a subscriber to the communications network (202, 206, 207) attempting to access a stored message, for establishing whether said subscriber is the intended receiver (209) of said message, before granting access to said message by said subscriber.

15. A system according to claim 14, dependent on claim 6, 7 or 8, wherein said validating means are arranged for verification and authorization of said subscriber using said additional information.

16. A system according to any of the previous claims, wherein said alerting arrangement (504) is arranged for including in said alert information as how to access a stored message.

17. A system according to any of the previous claims, wherein said controlling arrangement (501) is arranged for storing and accessing a message under control of the intended receiver (209) of said message.

18. A system according to any of the previous claims, wherein said alerting arrangement (504) is arranged for controlling said alert by said intended receiver (209).

19. A system according to claim 17 or 18, wherein the extent of said control is defined by said sender (208).

20. A system according to any of the previous claims, wherein said accessing arrangement (508) is arranged for providing access to an intended receiver (209) of a message under access conditions defined by said sender (208) of said message.

21. A system according to any of the previous claims, wherein

said accessing arrangement (508) is accessible by means of an interface, including a graphical user interface, a voice control interface, an interactive voice response interface and a Dual-Tone Multi-Frequency interface.

5 22. A system according to any of the previous claims, wherein said storage facility (201a, 201b, 201c) is distributed over said communications network (202, 206, 207).

10 23. A system according to any of the previous claims, arranged for sending and receiving messages including voice mail messages, short messages, email messages and video mail.

24. A system according to any of the previous claims, arranged for providing alerts in message form, including voice mail messages, short messages, email messages and video mail.

15 25. A system according to any of the previous claims, wherein said alert takes the shape of a form for processing and displaying by a graphic user interface, said form comprising information of at least one message for said intended receiver (209).

20 26. A system according to claim 25, wherein said graphic user interface is arranged for duplex transfer of data, and wherein said form is an interactive form.

25 27. A system according to any of the previous claims, wherein said communications network (202, 206, 207) comprises at least one of group comprised by telecommunications and data networks, including the Internet, a Public Switched Telephone Network, an Integrated Services Digital network, and a Public Land Mobile Network.

28. A terminal for use in the system according to any of the previous claims, said terminal comprising control means arranged for interfacing with at least one of said controlling (501), alerting (504) and accessing (508) arrangements.

30 29. A network node arrangement for use in a communications network (202, 206, 207), according to any of the claims 1-27, said

network node arrangement comprises a controlling arrangement (506), arranged for controlling storage of a message and for controlling access to a stored message; an accessing arrangement (508), arranged for providing access to a stored message, and an alerting arrangement (504), arranged for providing an intended receiver (209) with an alert relating to the storage of a message.

30. A method of sending and receiving multi media messages in a communications network (202, 206, 207), between at least one sender (208) and at least one intended receiver (209) of a message, said method comprising the steps of:

- assigning, to said sender (208) of a message, of at least one storage facility (201a, 201b, 201c) arranged for storing at least one message,

- storing, by said sender (208), of at least one message in the or each storage facility (201a, 201b, 201c),

- alerting at least one intended receiver (209) by an alert relating to the storage of a message, and

- providing access to a stored message,

characterized in that a stored message is processable under control of said sender (208) of said message after final storage thereof or completion of a call.

31. A method according to claim 30, wherein said processing includes at least one of storing, accessing, reading, editing and removing said message under the control of said sender (208).

32. A method according to claim 30 or 31, wherein said sender (208) selects a storage facility (201, 201b, 201c) for storing a message.

33. A method according to any of the claims 30 - 32, further comprising the step of controlling said alert by said sender (208) of a message.

34. A method according to claims 33, further comprising the step of manipulating an alert, said manipulation including at least one